

1996 Fall Meeting F123

15. The observed structure of the OH
latitude highlights the diversity and
the MLT region at northern latitudes.
evidence of ducted propagation in the
groups are observed and spectrally
peak wave activity is made over land
ture, perpendicular to and coincident
seems to appear and fade on the
scale structure is analyzed with
ities in association with localized

A42C MC: HALL D Thurs 1330h Middle Atmosphere Composition and Chemistry 11 Posters

*Presiding: R W Nightingale, 1 Lockheed
Martin ATC*

Search Council and the US

A42C-1 1330h POSTER

Atmospheric Spectroscopy of the OH Radical Using Ground- Based High Resolution Ultraviolet Interferometry

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The hydroxyl radical plays a key role in atmospheric chemistry from
the surface to the mesosphere. We present the first results obtained
from a new ground-based instrument designed to measure the column
concentrations of OH and other species with resolved vibrational and
rotational features in the near-ultraviolet and visible spectral regions.
This instrument, called the Fourier Transform Ultraviolet Spectrom-
eter, has recorded spectra of the $A^2\Sigma^+ \leftarrow X^2\Pi(0,0)$ band of OH at 308
nm from the Table Mountain Facility of the Jet Propulsion Laboratory
near Wrightwood, California, between May and September, 1996. Ab-
sorption measurements have been made on five OH rotational lines in
solar absorption mode. For these measurements, the solar background
spectrum was reconstructed by alternately viewing the east and west
solar limbs and using the resulting Doppler-shifted spectra to recon-
struct the solar spectrum in the absence of atmospheric OH. Results
will be presented showing the observed OH column optical depths over
several diurnal cycles with comparisons to atmospheric model calcula-
tions.

more National Laboratory (LLNL)
Relative transport (CRT) model is
on planetary wave breaking on sea-

